2017

The Political Impact of Rising Trade Exposure: Evidence from 2000 - 2016 U.S. Presidential Elections

Xiaoyang Qian
Claremont McKenna College

CLAREMONT MCKENNA COLLEGE

THE POLITICAL IMPACT OF RISING TRADE EXPOSURE: EVIDENCE FROM 2000 – 2016 U.S. PRESIDENTIAL ELECTIONS

SUBMITTED TO

PROFESSOR CAMERON SHELTON

AND

PROFESSOR MANFRED KEIL

AND

DEAN PETER UVIN

BY

XIAOYANG QIAN

FOR

SENIOR THESIS

SPRING 2017

04/24/2017

Abstract

In this paper we analyze the impact of global imports on regional labor markets, and how such impact translates to changes in voting patterns in the U.S. Presidential elections from 2000 to 2016. We find that imports from different U.S. trading partners influence voting patterns in different ways. In particular, we observe an anti-incumbent effect caused by import competition from OECD countries. Such an effect cannot be observed for imports from low-income countries. There is also evidence that suggests high exposure to import competition tends to drive voters toward the Democratic candidate, who typically proposes better social welfare programs and more protectionist policies. For imports from low-income countries, evidence for such effects is less robust, but still significant. Despite the voters' earlier alignment toward the Democrats, we observe a significant voter realignment toward the Republican candidate in the 2016 election due to sudden changes in the Republicans' stance on global trade. Taken together, these results paint a picture of how the voters' sentiment towards global trade evolves throughout time and varies with regards to different U.S. trading partners.

Acknowledgments

I consider myself extremely fortunate to be surrounded by a group of intelligent, inspiring, and loving people, without whom my college career, or life in general, would be very different. It is impossible to list them all here, but there are a few that I would like to thank in particular.

First, I would like to thank Professor Cameron Shelton for his patience and wisdom in guiding me through this thesis – that is, despite my strings of panicked emails and nonsense questions. I leave every thesis meeting with a deeper understanding of not just economics, but ways to think structurally and logically when approaching an open-ended question. This skill will be my biggest takeaway from Senior year.

I would also like to thank Professor Manfred Keil for his invaluable inputs throughout my writing process and continuous effort to pronounce my name in the most accurate way possible.

To my friends that made the last four years at Claremont an unforgettable experience: Jenny Cang, Jessica Bass, Michael Boggess, Grace Stewart, Grace Lee, Denise Machin, and so many others. I am going to recall our midnight struggles in the computer labs, thesis t-shirt ideas, meals at the dining halls, 7am dance practices, afternoon walks under the sun, all with so much fondness. You are the reason why Claremont feels like home.

Finally, to my parents, whom I am indebted to for their unconditional love and support: I am very proud to call myself your daughter.

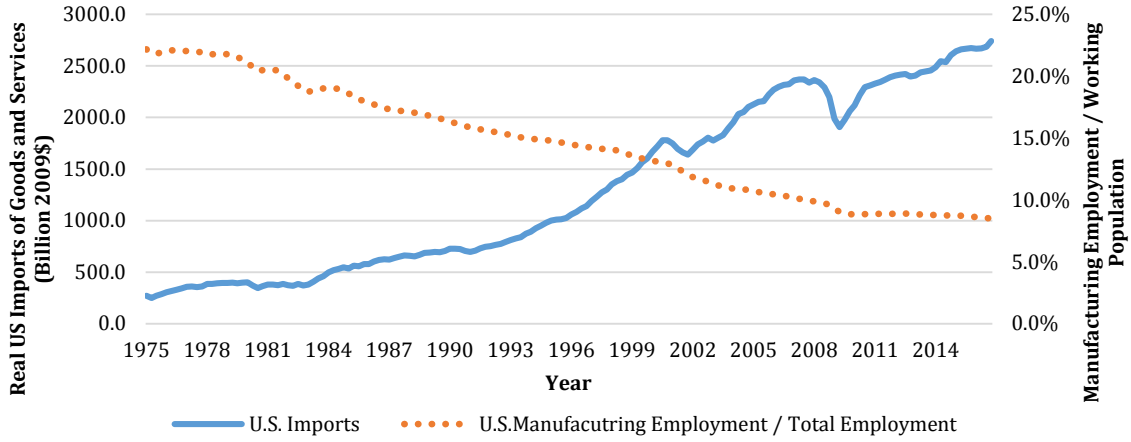
Table of Contents

1. Introduction

The beginning of the 21st century has witnessed two significant changes in U.S. labor and trade markets that coincided in their timeline and scale: a gradual loss of manufacturing employment and a steady growth in global imports. The fraction of the U.S. work age population employed in manufacturing dropped by over a third, from 9.6 percent to 6.0 percent over the period of 2000 to 2014. Even though U.S. manufacturing employment has been declining since the 1980s, the pace of the decline is unprecedented (Figure 1). During the same period, U.S. imports steadily grew. Overall U.S. real imports of goods and services increased by roughly 50 percent, from $1.7 trillion in 2000 to $2.7 trillion in 2016.[1] Given the decreasing cost of transportation and the accelerating process of globalization, such growth in U.S. global imports is hardly surprising. However, what sets the import growth in 21st century apart from previous ones is the significantly higher share of imports from low-income countries. In 2000, the share of U.S. imports from developing countries was 15 percent. In 2016, the number increased to 38 percent. Imports from China, which joined the World Trade Organization (WTO) in 2001, contributed to 89 percent of this increase (Autor, Dorn and Hanson 2013).

[1] Inflation adjusted 2009 dollar.

Figure 1. U.S. Global Imports (left scale) and Share of U.S. Working-Age Population Employed in Manufacturing (right scale)



Notes: Both trade and manufacturing employment data from Federal Research Economic Data (FRED).

Researchers have established a link between the loss in U.S. manufacturing employment and the rise in import competition from low-income countries. The most significant example is import competition from China, which explains 16 percent of the U.S. manufacturing decline between 1990 and 2000, and 26 percent from 2000 to 2007 (Autor, Dorn and Hanson 2013). Changes of this magnitude affect ordinary workers in a variety of ways. Regions that are more exposed to trade competition witness a sharp increase in transfer benefits payments for unemployment, disability, retirement, and healthcare (Autor, Dorn and Hanson 2013). Such drastic changes in workers' quality of life and social status have reshaped their overall perception of the economy and have had profound political and social impact.

One of the most direct reflections of such impact is the heated debate regarding foreign trade in presidential elections. In particular, the presidential election of 2016 witnessed diverging views on global trade between candidates, with Republican candidate Donald Trump positioning himself as a fierce opponent to globalization and

attributing global trade as one of the primary reasons leading to the decline in U.S. employment. The Republicans' campaign, which heavily attacked global trade, appears to have succeeded, as levels of import competition and increased support for Republicans appear to correlate. Table 1 shows the comparison of voting behaviors between counties impacted by different levels of import competition through various U.S. trading partners. For counties located in labor markets at the top 25 percentile of exposure to aggregated foreign trade, Republicans won 13 percent more counties compared to the 2000 presidential election. This correlation suggests the potential for a strong impact of import competition on presidential elections.

Table 1. Percentage of Counties Voting for Republicans by Level of Exposure to Import Competition

Percentile of Import Competition	China		Mexico		OECD		Total	
	2000	2016	2000	2016	2000	2016	2000	2016
0-25%	85.1%	83.9%	80.4%	81.7%	80.3%	79.9%	81.0%	80.3%
25-50%	73.5%	81.0%	76.2%	77.4%	75.8%	80.1%	77.2%	80.8%
50-75%	79.5%	82.8%	75.7%	86.0%	80.5%	86.6%	77.5%	83.9%
75-100%	75.7%	90.0%	81.5%	92.5%	77.3%	91.1%	78.3%	91.3%

Notes: Each column shows county-level Republican vote shares, categorized by the level of regional import competition. Republican vote share is high because on the county level, most counties in the U.S. vote for Republicans. Import competition measures the loss in regional employment due to foreign trade. A high level of import competition suggests large loss of local employment.

The purpose of this paper is to investigate import competition's impact on U.S. presidential elections from 2000 to 2016. We use a panel of five presidential elections and 3,106 counties in mainland U.S. as the basis for our empirical analysis. For each U.S. county, we measure how the labor market where it locates in is impacted by competition with global imports, and how such impacts translate to changes in county-level voting patterns.

Our findings suggest that import competition has had significant impact on U.S. presidential elections, but such impact varies across trading partners and throughout time. Before the 2016 election, we observe evidence that import competition from OECD countries tended to drive voters toward the Democratic candidate, who usually proposes more generous social welfare programs and more protectionist policies, and therefore is more aligned with the interests of voters who suffer from import competition. Workers competing with imports from OECD countries also tended to punish the incumbent Party for the decline in local labor markets caused by import competition. The evidence for such impact on voters competing with Chinese imports is much less robust. We also find that the 2016 election significantly reshaped voters' behavior: despite the previous alignment with Democrats, voters impacted by all sources of foreign trade switched to support Republicans, even after the anti-incumbent effect is accounted for.

Our research adds to the existing literature in a number of ways. First, to the best of our knowledge, there has not been a study that compares and contrasts the political impacts of rising imports from different U.S. trading partners. Second, we measure the Republicans' gain in vote share in 2016 after the sudden changes in the Republican platform on global trade. Taken together, our analysis shows how the voters' sentiment towards global trade evolves throughout time and varies with regards to different U.S. trading partners.

For the remainder of the paper, we proceed as follows. Section 2 provides a literature review of the economic and political impact of global imports. The key concepts and measurements used in the paper are outlined in Section 3. Section 4

shows the theoretical framework used to conduct the empirical analysis. Section 5 outlines and discusses the results. A final section concludes and makes suggestions for future lines of inquiry.

2. Literature Review

Growth of global trade has had a profound impact on the U.S. labor market. On the national level, demand shifts toward high-skilled labor, as both employment and wages of skilled workers increase relative to unskilled workers (R. Feenstra 2010). The result of this shift is a diverging economic reality between workers with different skill levels. For skilled labor, growing trade boosts employment in the form of outsourcing. Since the 1980s, outsourcing has accounted for 31 to 51 percent of the increase in relative demand for skilled labor that occurred in U.S. manufacturing industries (Feenstra and Hanson 1996). The cost of international trade, however, bears unevenly on low skilled workers, who are forced to switch occupations as their jobs are lost to foreign imports. They also suffer from average real wage losses from 12 to 18 percentage points (Ebenstein, et al. 2014).

In recent years, a growing amount of literature has focused on the impact of import competition from low-income countries on regional labor markets. Trade theory states that developing countries, due to their specialization in unskilled labor-intensive employment sectors, have a particularly strong impact on labor markets in high-wage countries (Krugman 2008). Empirical findings support such theory, where studies show that import competition from China explains one-quarter of the contemporaneous aggregate decline in U.S. manufacturing employment. The actual amount of job losses is estimated to be between 2.0 and 2.4 million (Acemoglu, et al. 2016). Because manufacturing is the stronghold that provides middle class lifestyles for low-skilled laborers, such decline has strong implications for the quality of life and social status of workers in trade-exposed regions. Transfer benefits payments, disability, retirement,

and healthcare costs rise sharply (Autor, Dorn and Hanson 2013). Overall, the above studies demonstrate the contrasting economic realities for winners and losers in international trade. Winners include: consumers, who enjoy lower prices; shareholders in sourcing industries, who benefit from lower costs and greater profit; and high-skilled laborers that experience higher wages and greater employment opportunities. Low-skilled workers, on the contrary, suffer from greater job churning and reduced lifetime income (Acemoglu, et al. 2016).

In addition to impacting the regional and national economy, import competition also has a strong political influence. One major area where the influence can be observed is the presidential and congressional voting outcomes by region. Three major channels through which import competition impacts electoral outcomes have been identified (Autor et al. 2016):

The first channel is the *anti-incumbent effect*. Classical economic voting theory states that voters reward the incumbent party for strong economic performances, including low unemployment rate, low inflation, and high growth of GDP, and punish them for the reverse (Fair 1978, Kramer 1971, Duch and Stevenson 2008). Given its strong impact on regional economic conditions, import competition can influence voters' support for the incumbent. Specifically, the benefits and costs of global trade across geographical regions and workers of different skill levels are distributed unevenly. Therefore, one expects voters in regions that have benefitted from global trade to reward the incumbent and the opposite for regions that have suffered from import competition. One potential objection to this impact channel stems from past research on classical economic voting theory, which shows that voting behavior is

dominated by national economic performances rather than personal economic grievances (Kinder and Kiewiet 1979). That is, local exposure to import competition should not impact voter sentiment toward the incumbent once national level exposure is controlled for. However, this hypothesis is contradicted by Jensen, Quinn and Weymouth (2016), who show that incumbent party vote shares increase in counties with more employment in high-skilled tradable services and goods, and decrease for the opposite. The anti-incumbent effect is, thus, one potential channel for import competition to impact the presidential election.

The second channel is the *realignment effect*. Namely, when faced with changing economic prospects, individuals may realign with either Democrats or Republicans instead of simply switching away from the incumbent. Evidence of the realignment effect includes the association between higher unemployment rates and increasing support for Democrats (Wright 2012). Furthermore, congressional districts which experience larger increases in import competition are observed to become more protectionist in their voting on trade-related bills (Feigenbaum and Hall 2015, Che, et al. 2016). The realignment effect can be explained by voters identifying one party's social policies as more suitable to their economic circumstances. For example, Democrats have historically been more likely than Republicans to support legislation limiting global trade or favoring economic assistance (Che, et al. 2016). Therefore, they tend to receive higher support from low-skilled workers seeking protectionist policies or better social welfare.

Finally, import competition may impact election outcomes through the *polarization effect*, which can be observed from voters removing centrist politicians in

favor of extremists. Autor et al. (2016) observe this pattern in congressional voting by noting that congressional districts exposed to larger increases in import competition disproportionately removed moderate representatives from office in the 2000s. One major factor that contributes to the rise of polarization effect is how concentrated import competition is in certain geographical regions and industries. Local labor markets that historically specialized in labor-intensive manufacturing disproportionately bear the cost of imports, resulting in voters resorting to politically extremist viewpoints. However, the polarization effect in presidential elections is harder to measure, as most voters only make a binary choice between Democratic and Republican candidate, rather than voting on a variety of bills and positions as they do on the congressional level. To a certain degree, the 2016 presidential election can be seen as the polarization effect in action. Republican candidate Donald Trump's nativist, protectionist, and conservative campaign successfully won him the presidency, providing an initial evidence of voters being driven toward extremist views when faced with a bleak economic prospect.

The above framework provides a system for examining the interaction between voter behavior and import competition. We construct our specifications to compare and contrast how import competition influences the U.S. presidential elections through these channels with regard to different trading partners and throughout time.

3. Key Concepts and Measurements

3.1 Regional Labor Markets

One challenge with identifying regional labor markets is that non-metro counties in the U.S. exhibit a "great deal of variation in economic and social characteristics" (Tolbert and Sizer 1996). In 2015, the smallest county in the U.S. by population, Loving County, TX, had a population of 85, whereas the largest, Los Angeles County, CA, had a population of over 10 million. A total of 301 counties, or around 10 percent of the total observations, have populations under 5,000. Counties with small populations are prone to large fluctuations in economic indicators, while a small change in demographics can have a disproportionate impact on summary statistics. Furthermore, because of the limited geographic sizes of the counties, residents in one county often commute to work in another. As a result, county level economic measures, such as employment structure and unemployment rate, often fail to accurately reflect the regional economic reality.[2] Therefore, Commuting Zones (CZs), as an alternative measure of labor markets, are widely used in economics and population estimates. CZs are designed to reflect individual labor markets, and therefore are adopted in this paper as a basic unit used to measure the import competition experienced at a regional level. Our analysis includes 3,106 counties that are clustered into 722 CZs for the mainland US,[3] including both metropolitan and rural areas.

[2] As an example, if a worker who is registered as a resident of County A commutes to work in County B becomes unemployed, the unemployment rate at County A increases, when in fact it is the labor market condition in County B that has changed.
[3] Alaska and Hawaii counties are excluded due to lack of county level election data.

3.2 Measuring Regional Labor Market Exposure to Import Competition

Our main measure of a Commuting Zone's exposure to import competition is defined as the average change in import in a CZ's industries, weighted by each industry's share in initial CZ employment (Autor et al. 2017).

$$IC_{it}^{cu} = \sum_{j} \frac{L_{ij1999}}{L_{i1999}} IPR_{jt}^{cu} \quad (1)$$

In this expression, $IPR_{jt}^{cu} = \frac{M_{jt}^{cu}}{Y_{j0}+M_{j0}-X_{j0}}$ is the level of import penetration by exporter (designated c) in the U.S. (designated u) for industry j in year t. It is computed as the level of U.S. imports from exporter c, M_{jt}^{cu} , normalized by the initial absorption (U.S. industry shipments plus net imports, $Y_{j0} + M_{j0} - X_{j0}$ in the base period 1991). The fraction $\frac{L_{ij1999}}{L_{i1999}}$ is the share of industry j in CZ i's total employment, as measured in the 1999 County Business Patterns data. Employment data from 1999 is chosen as the baseline measure because it is the year before the first election in the sample period, and it captures the regional employment structure shortly before China joined the WTO. More intuitively, the definition above is a product of the fraction of 1991 demand for goods that is now imported, and the share of producing such goods in local employment structure. Therefore, 1 unit of exposure to import competition is a 100 percentage point loss of the CZ's 1999 employment to foreign trade.[4]

[4] As an example, if in 2000, for industry j, the U.S. imports 50% of its 1991 absorption from China, and CZ i employs 50% of its workforce in industry j, then the exposure to Chinese import penetration for CZ i in industry j is 0.25, because 25% of its employment is replaced by foreign trade. As the demand for products grows over time, import penetration for CZs often exceeds 1. This is because the employment structure used here is fixed at 1999 level when in reality it is adjusting based on market demand. Furthermore, the absorption level is fixed at 1991 level when demand for goods has been growing.

Both trade theory and empirical analysis have shown that developing countries, due to their specialization in low-skilled labor-intensive employment sectors, have a particularly strong impact on labor markets in high-wage countries (Krugman 2008, Autor, Dorn and Hanson 2013). Therefore, we categorize U.S. trade partners into the following groups: China, Mexico, OECD countries excluding Mexico, and the rest of the world. This approach allows us to separately analyze the political effects of import competition from developing and developed countries.

Upon an initial examination of U.S. regional labor markets' competition with global trade, we draw the following observations:

First, import competition from different countries have different yet largely overlapping geographical concentrations. By comparing trade exposure to China and OECD countries (excluding Mexico), we find that counties that are only exposed to China imports are largely distributed in the South, whereas counties that are only exposed to OECD imports are more evenly distributed in the South, Midwest, and Pacific Northwest. Imports from China and Mexico, on the hand, are more geographically aligned (Figure 3). Overall, however, import competition from different sources largely share similar geographical concentrations. We observe heavy presence of import competition from all exporters in the South, Midwest, and Northeast (Figure 4). This observation is further supported by the high spatial correlation between import competition from various sources (Tables 2, 3).

Second, while import competition from OECD countries is higher in level, the growth rate of competition from China far outweighs that of the former (Figure 2). From 1999 to 2014, the weighted average of import competition from China tripled

from 0.41 to 1.51 units, compared to that of OECD countries that remained virtually unchanged at around 2.5 units. Although competition from Mexico and other countries also increased during the period, the scale of their growth is small compared to that of China (Table 4).

The observations above suggest that certain regions in the U.S. have historically experienced high levels of import competition as their labor markets compete with OECD countries. Some other regions have started at a low level but experienced high growth in import competition in the last two decades because their labor markets primarily compete with imports from China, which has increased rapidly since the 2000s. Overall, however, the high spatial correlation between imports from different sources suggests that most labor markets are hit twice by import competition: once before the 2000s from OECD countries, and once after the 2000s from China.

Table 2. Spatial Correlation Between Growth in Import Competition (1999 – 2014) from China, Mexico, and Other OECD Countries

	China	Mexico	OECD	Others
China	1			
Mexico	0.4088	1		
OECD	0.4476	0.5610	1	
Others	0.1909	0.1839	0.3039	1

Table 3. Spatial Correlation Between Level of Import Penetration (2015) from China, Mexico, and Other OECD Countries

	China	Mexico	OECD	Others
China	1			
Mexico	0.6850	1		
OECD	0.5499	0.6967	1	
Others	0.6249	0.4504	0.4864	1

Table 4. Weighted Mean of Import Competition from Selected Years

	China	Mexico	OECD	Other
2000	0.4971	0.5220	2.5983	1.0055
2004	0.8988	0.5182	2.4721	0.9640
2008	1.1971	0.5011	2.4759	0.9396
2014	1.5106	0.6898	2.3834	1.0283

Notes: Reported as import competition weighted by size of each Commuting Zone's 2000 labor force.

Figure 2. Comparison of Import Competition Growth (1999 – 2014)

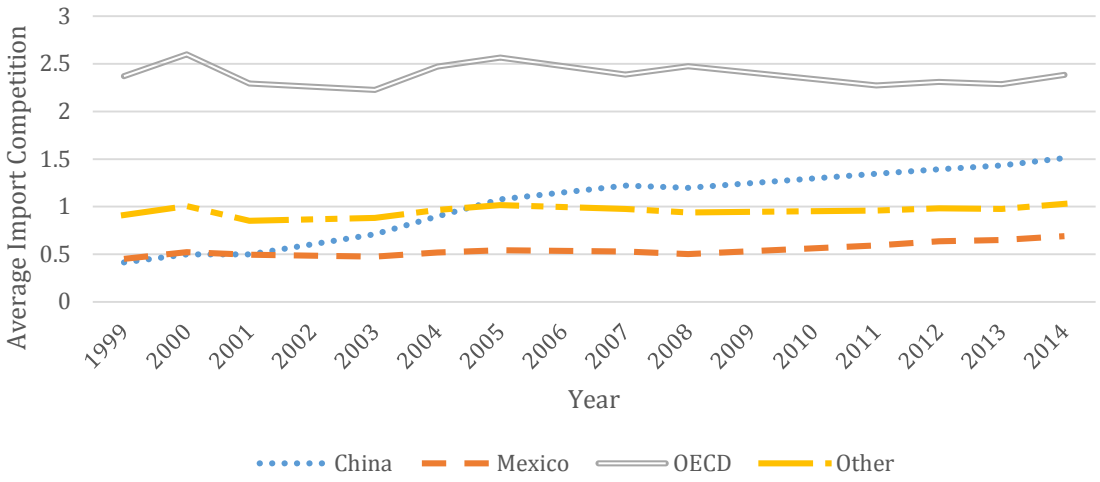
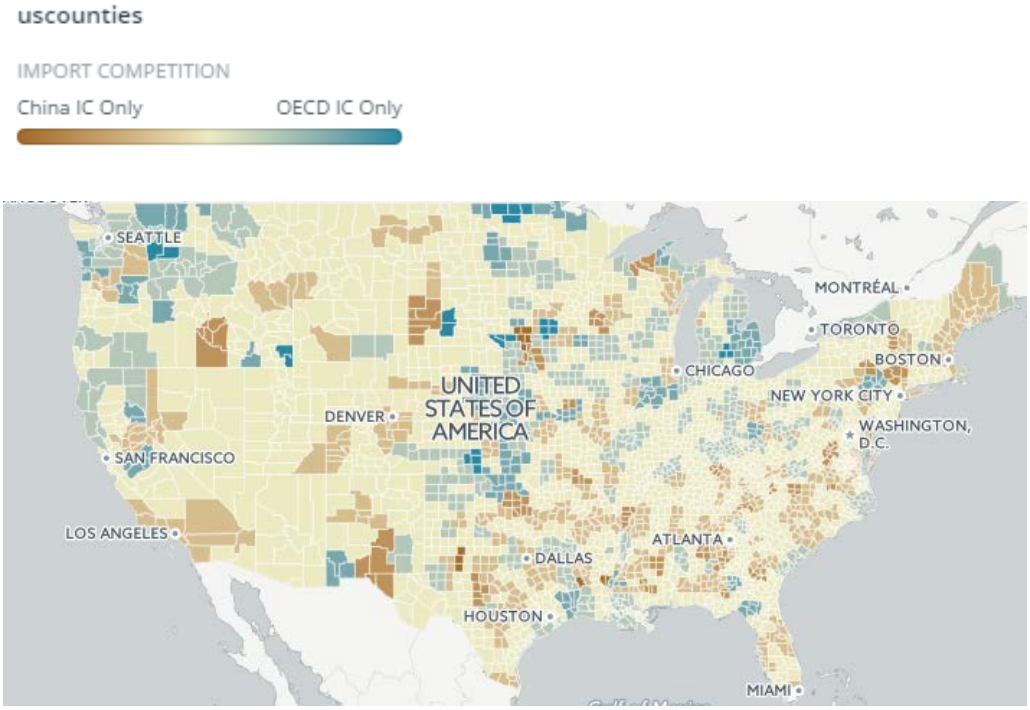
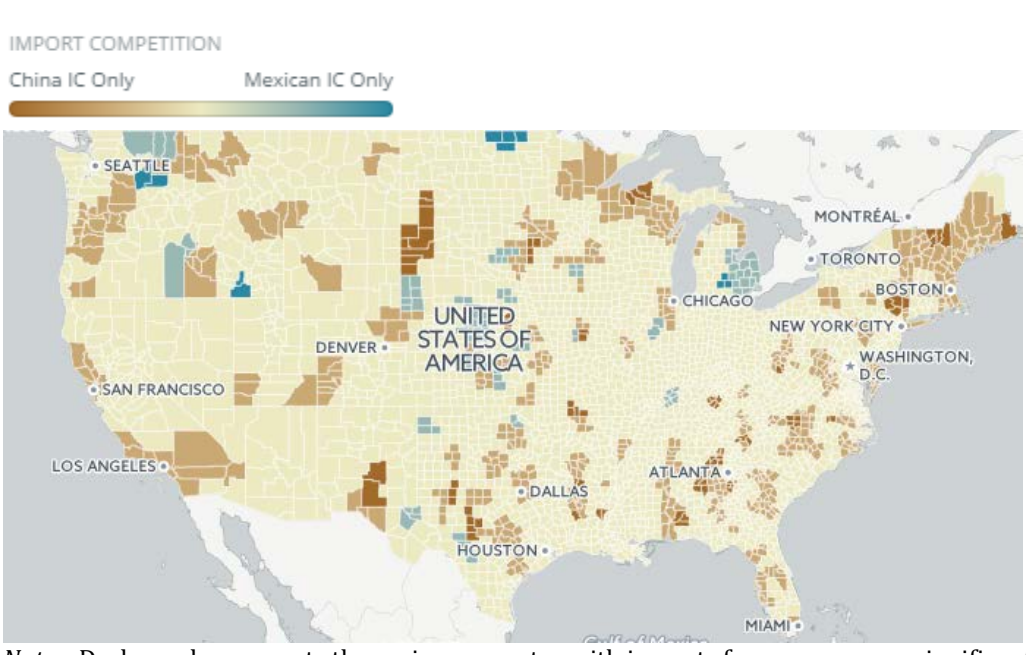


Figure 3. Differences in Distribution of Import Competition, 2015 Level

Panel A. China and OECD Countries (Excluding Mexico)

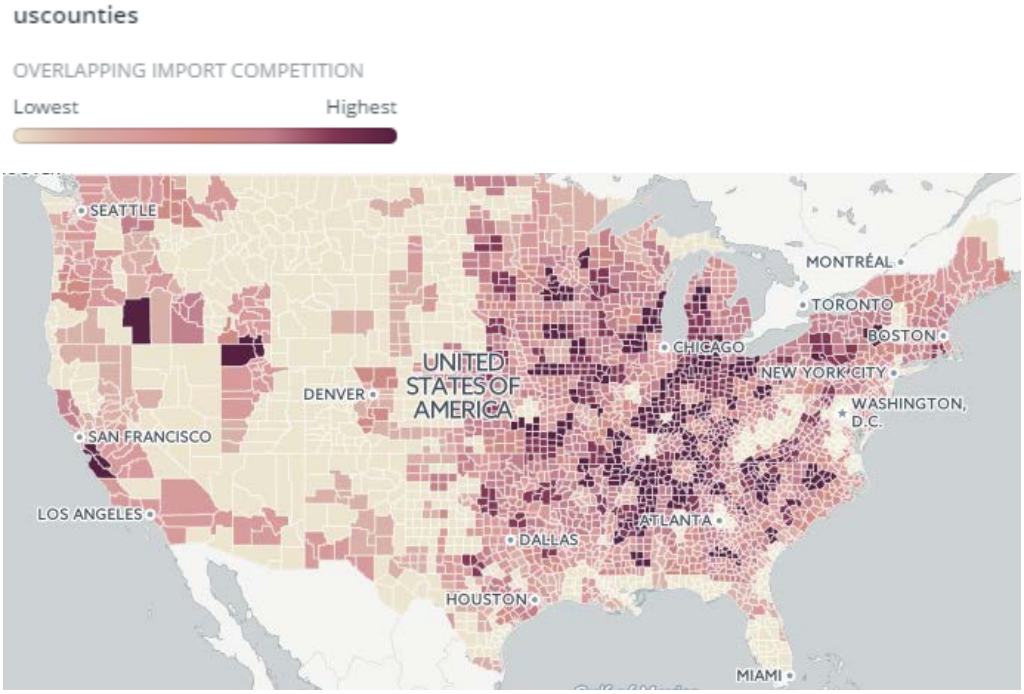


Panel B. China and Mexico



Notes: Darker color suggests the region competes with imports from one source significantly more than the other; lighter color suggests the region competes with approximately the same level of imports from both sources.

Figure 4. Overlaps in Chinese, Mexican, and other OECD Countries' Import Competition Distribution, 2015 Level



Notes: Darker color suggests the region is exposed to higher aggregated import competition.

3.3 Measuring Industry Level Exposure to Import Competition

Building upon the previous definition of import competition at local labor markets, we define each industry's exposure to import competition as:

$$IC_{jt}^{cu} = \frac{L_{j1999}}{L_{1999}} IPR_{jt}^{cu} \quad (2)$$

Expression (2) weights the amount of import in industry j (normalized by 1991 base absorption) by j's share in total U.S. employment. Therefore, for an industry to experience high level of import competition, two conditions must be satisfied. First, the U.S. must import, rather than domestically manufacture, a high level of products within this industry. Second, the industry must employ a significant share of U.S. labor force. Each 0.01 unit of exposure to import competition in industry j represents 1 percentage

point loss of total U.S. employment due to foreign trade.[5] We report summary statistics for import exposure for 396 manufacturing industries in 2015 in Table 5.

Through examining U.S. manufacturing industries' competition with global trade, we make the following observations. First, low-income industries are particularly prone to a high level of import competition from China. High-income industries, in comparison, are more likely to compete with imports from OECD countries (Figures 6,7). Specifically, for industries located within the lowest quartile of income, 30 percent compete with high level (top quartile) Chinese imports, whereas only 8 percent compete with high level of OCED imports. The trait is reversed for industries in the top income quartile, among which 39 percent competes with high levels of import from OECD countries, compared to a mere 19 percent that competes with high levels of Chinese imports. Based on the correlation between different sources of import competition faced by each industry, we further observe that Mexico and other OECD countries tend to compete in a similar set of manufacturing industries, whereas imports from China compete in a relatively different sector (Table 6). Assuming that industry average wage is a good proxy for the industry's skill level, our evidence shows that high-skilled workers are more likely to compete with OECD countries' import, whereas low-skilled workers face higher levels of import competition from China.

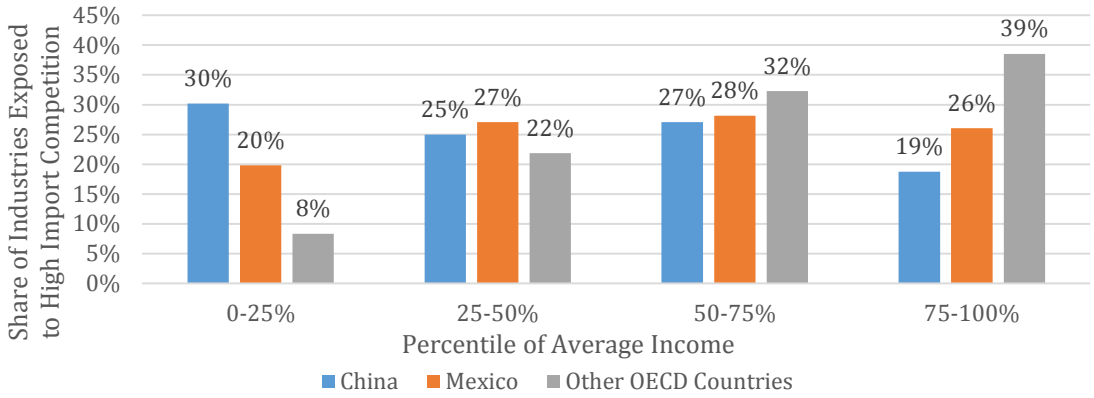
[5] As an example, if in 2000, for industry j, the U.S. imports 50% of its 1991 absorption from China, and industry j accounts for 1% of total U.S. employment. Then industry j's exposure to import competition is 0.5%, representing a 0.5% overall loss in U.S. employment due to foreign trade.

Table 5. 2015 Industry Exposure to Import Competition, Summary Statistics

	Mean	Standard Deviation	Sum
China	0.39%	0.011	156.61%
Mexico	0.18%	0.0061	72.60%
OECD	0.61%	0.014	241.67%
Others	0.27%	0.0071	107.10%
Total	1.46%	0.029	578.00%

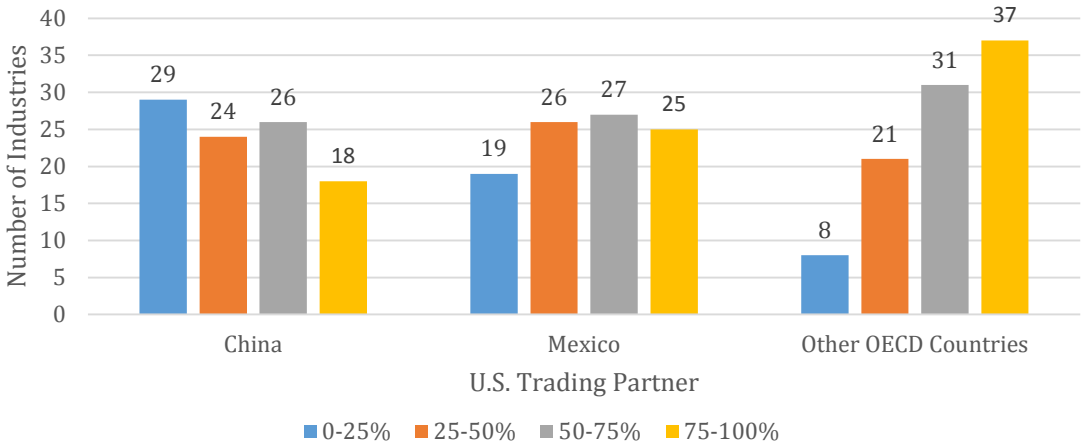
Notes: Based on 2015 industry level import competition data. Industry are coded based on SIC87 standard. A total of 396 manufacturing industries are included.

Figure 5. Low Income Industries Are More Likely to Compete with Chinese and Mexican Imports



Notes: Based on 2015 industry level import competition data. A total of 396 manufacturing industries are included. Each cluster represents one quartile of U.S. manufacturing industries, categorized by industry-level average income. Within each cluster, we present percentage of industries that compete with a high level (top quartile) of import competition from various sources.

Figure 6. China Import Competition Competes More Heavily with Low-Income Industries, Whereas OECD Countries Compete Predominantly with High-Income Industries



Notes: Based on 2015 industry level import competition data. A total of 396 manufacturing industries are included. Each cluster represents the top quartile of industries exposed to trade from one specific exporter. Within each cluster, we present number of industries in each quartile of average income.

Table 6. Correlation between Industry Exposure to Import Competition in 2015

Country	China, Mexico	China, OECD	Mexico, OECD
Correlation	0.3325	0.2553	0.6285

Note: Based on 2015 industry level import competition data.

3.4 Potential Challenges to Identification

We identify three main potential threats to our estimation.

First is the concern that regional laissez-faire attitude, as an omitted variable, drives up both republican vote shares and manufacturing employment. The most obvious example is the U.S. South, which has leaned Republican in presidential elections since the mid-1960s. The South has also been relatively laissez-faire and anti-union, which has allowed it to attract an increasing share of manufacturing in the 1990s and 2000s. As a result, the South has been exposed to growing import competition. Therefore, regional laissez-fair attitude increases both support for Republicans and exposure to import competition. To address this concern, we experiment with two control variables: one interacts import competition with the regional share of manufacturing employment, and the other interacts import competition with a U.S. South dummy. The former addresses the broader concern of demand of laissez-faire regulation driving up both Republican vote share and regional import competition, but suffers from relative high correlation with our other main variables of interest. The latter directly addresses the observed omitted variable bias associated with U.S. South, but is restricted in its power to absorb bias in other regions in the U.S. We discuss the results and tradeoff from using these two variables in Section 5.

Secondly, employment in the manufacturing sector is sensitive to expectations toward future global trade. Manufacturers tend to hire fewer local workers when expecting higher levels of imports in their industry. Given that the U.S. was already a part of major global trade organizations (NAFTA in 1994 and WTO in 1995) by 1995, expectations toward future exposure to trade was likely high in 1999, and therefore regional manufacturing employment during that time could have already been negatively impacted by high expectations toward global trade in the 21st century. That is, import competition in the 2000s may have impacted local labor markets in the 1990s. Therefore, using 1999 as the base year for capturing local employment structure can potentially lead an under-evaluation of the impact of import competition.

Lastly, there also exists the challenge of identifying the supply-driven component of U.S. imports. A potential source of endogeneity is that industrial or regional demand shocks may drive up both demand for foreign goods and regional employment. As a result, the gain in employment partially offsets the impact from import competition. In this case, OLS estimates of the relationship between increased imports and changes in U.S. manufacturing employment may understate the impact of the pure supply shock component of rising import competition (Autor et al. 2017), which leads to inaccurate estimation of its impact on presidential election outcomes. To address the above challenges, we employ the following instrumental-variable strategy following Autor et al. (2017):

$$IC_{it}^{cu} = \sum_{j} \frac{L_{ijt-10}}{L_{it-10}} IPR_{jt}^{co} \qquad (3)$$

where $IPR_{jt}^{co} = \frac{M_{jt}^{co}}{Y_{j0}+M_{j0}-X_{j0}}$. (3) differs from (2) in that it replaces the change in U.S. imports with that of nine other developed countries,[6] and that it lags U.S. labor force shares by ten years. We assume that the selected developed countries resemble the U.S. in their global trade patterns. By using imports to other developed countries that are similar to the U.S. as an instrument, we are able to disentangle the supply-driven component of import competition. We further assume that the local employment structure in the previous decade is a good proxy for employment structure in the current decade, but is not affected by expectations from the current decade toward future global trade. Therefore, lagging local employment structure by ten years mitigates the simultaneity bias caused by expectations of future trade patterns. Success of the above instrumental variable strategy relies on two main criteria. First, the instrument must be strongly correlated with the original measurement of import competition in the U.S. using 1999 employment structure as a base. Second, the instrument must only impact U.S. presidential election outcomes through correlation with U.S. regional import competition and not be correlated with the error terms. We discuss robustness of the instrument in the following section.

[6] The nine other high-income countries are: Australia, Canada, Denmark, Finland, Germany, Japan, New Zealand, Spain, and Switzerland. Canada was not included in Autor et al. (2017)'s instrumental variable strategy; it is added to our analysis because we are comparing the impact of trade from countries, including Mexico. Both members of NAFTA, Canada and the U.S. follow more similar patterns in global trade compared to the other developed countries listed above.

4. Hypotheses and Theoretical Framework

4.1 Hypotheses

To explore the impact of import competition on voting behaviors, this paper proposes the following hypotheses, which are examined using county level voting data.

H1. High levels of import competition are associated with decreasing vote share for the incumbent party.

Previous literature has shown that voters hold the incumbent government responsible for economic conditions (Nannestad and Paldam 1993). In particular, the President is considered liable for the economy, even when one party is in control of the presidency and the other party is in charge of Congress (Norpoth 2001). These economic voting theories are applicable to the political and economic landscape from 2000 to 2016. Because regions with higher concentrations of employment in low-skilled manufacturing suffer from deep economic losses due to global import competition, especially since China joined WTO (Autor, Dorn and Hanson 2013), we hypothesize that import-impacted voters blame the incumbent President for their economic hardships.

H2. There existed a 2016-election specific sentiment against import competition.

The 2016 presidential election witnessed heated debates and diverging views on U.S. policies on global imports. In particular, Hillary Clinton showed a changing attitude toward global trade and trade agreements. She first championed but later criticized the North American Free Trade Agreement (NAFTA), voted against the Central American Free Agreement (CAFTA) as a Senator, and later defended the Trans-Pacific Partnership (TPP) as the Secretary of State. On the contrary, Trump fiercely targeted global trade as

a leading cause of losses in manufacturing employment. He called for protective tariffs (for example, a 45 percent tariff on U.S. imports from China) and promised to scrap major trade deals. If there existed anti-trade sentiments, then Trump's campaign directly addressed them. Therefore, we hypothesize that voters in regions with higher exposure to import competition showed additional support for Republicans in 2016. That is, there existed a "Trump / 2016" effect.

H3. Voters in regions impacted by China, Mexico, and other OECD countries behave differently in elections.

Import competition from China, Mexico, and other OECD countries differ in their industrial and geographical concentration, level, and growth rate. High-skilled industries constantly experience high level of import competition, while low-skilled industries experience import competition at a historically low level but fast growth in recent years. We expect regions exposed to imports from developed countries to exhibit voting patterns more aligned with classical anti-incumbent effect, as imports from those countries have gradually increased over time and are better integrated into the U.S. economy. While we expect a significant impact from Chinese and Mexican imports, we are ambivalent towards the specific channels through which the impact happens, because such drastic increase in imports and the corresponding decline in manufacturing employment is unprecedented. However, we do expect voting patterns in regions competing with China and Mexico to differ from voting patterns in regions primarily competing with OECD countries.

4.2 Theoretical Framework

We estimate the following specification:

$$GOP_{voteshare\ i,t} = \beta_0 + \beta_1 \Delta Unemployment\ rate_{i,t} * GOPIncumbent_t + \beta_2 Unemployment\ Rate_{i,t} + \beta_3 Manufacturing\ Employment_{c,t} + \beta_4 IC_{c,t}^{US} + \beta_5 IC_{c,t}^{US} * GOPIncumbent_t + \beta_6 IC_{c,t}^{US} * is2016 + \beta_7 * Z_{i,t}^{*} + \psi_i + \tau_t + \epsilon_{i,t} \quad (4)$$

This baseline specification evaluates the effect of import competition on support for the Republicans. The dependent variable, $GOP_{voteshare}\%$, is defined as the Republicans' two-party vote share for county i in year t. $GOPIncumbent$ is an indicator of whether the incumbent president is Republican. $\Delta Unemployment\ rate * GOPIncumbent$ controls for the impact of change in local unemployment rate on voters' attitude toward the incumbency. $Unemployement\ rate$ controls for the effect that higher unemployment rate is associated with increasing support for Democrats (Wright 2012). $Manufacturing\%$ is controlled for to address the correlation between high concentrations of low-skilled manufacturing workers and decreased support for the incumbent party (Jensen et al. 2016). We also include a series of demographic control variables in $Z_{i,t}$[7].

To test for our hypotheses on how import competition impacts county voting patterns, we include the following main variables of interest. $IC_{c,t}^{US}$ is import competition exposure experienced by the labor market c that county i is located in. A significant coefficient on this term would suggest the existence of realignment effect: that is, voters

[7] Demographic control variables measure percentages of population that are: black, Hispanic, foreign-born, young, holding bachelor degree or above, living in urban environment.

consistently respond to import competition exposure through aligning themselves with a certain party. $IC_{c,t}^{US} * GOPIncumbent$ is an interaction between import competition and the incumbency dummy. It tests for whether voters punish the incumbent party for losses in the labor market. A significant negative coefficient on this term would suggest anti-incumbent effect. Finally, $IC_{c,t}^{US} * is2016$ is an interaction between import competition and 2016-year dummy to test for the existence of 2016-specific support for the Republicans.

To address the endogeneity and omitted variable problems we identified before, we update the specification to the following:

$$\begin{aligned} GOP_{voteshare\ i,t} = {} & \beta_0 + \beta_1 \Delta Unemployment\ rate_{i,t} * GOPIncumbent_t \\ & + \beta_2 Unemployment\ rate_{i,t} + \beta_3\ Manufacturing\%_{i,t} + \beta_4 \widehat{IC_{c,t}^{US}} \\ & + \beta_5 \widehat{IC_{c,t}^{US}} * GOPIncumbent + \beta_6\ \widehat{IC_{c,t}^{US}} * is2016 \\ & + \beta_7 \widehat{IC_{c,t}^{US}} * U.S.South + \beta_8\, Z_{i,t}^{*} + \psi_i + \tau_t \\ & + \epsilon_{i,t} \end{aligned} \tag{5}$$

Expression (5) differs from in (4) in two places. First, we include another interaction with dummy U.S. South to address omitted variable bias caused by regional demand for laissez-faire driving up both Republican vote shares and manufacturing employment. Second, $IC_{c,t}^{US}$ is instrumented by $IC_{c,t}^{ot}$ to address endogeneity associated with U.S. imports and 1999 employment structure. In specification (5) it is replaced by $\widehat{IC_{c,t}^{US}}$, the fitted values produced by first-stage regression defined as:

$$IC_{c,t}^{US} = \pi_0 + \pi_1 \Delta Unemployment\ rate_{i,t} * GOPIncumbent_t + \pi_2 Unemployment\ rate_{i,t} + \pi_3 Manufacturing\%_{i,t} + \pi_4 IC_{c,t}^{ot} + \pi_5 IC_{c,t}^{ot} * GOPIncumbent_t + \pi_6 IC_{c,t}^{ot} * is2016 + \pi_7 IC_{c,t}^{ot} * South + \pi_8 Z_{i,t}^{*} + \psi_i + \tau_t + \epsilon_{i,t} \quad (6)$$

The IC interaction terms are similarly fitted through the above specification.

For the Two-Stage Least Squares estimation to correctly evaluate causal relations in (5), two conditions must be satisfied. First, there must exist strong correlation in the first-stage regression (6). We confirm that this condition is satisfied through examining the first-stage F-statistic (Figure 7). For import competition from China, Mexico, and other OECD countries, their first-stage F-Statistics are 136.33, 73.91, 132.66, respectively. Therefore, our instruments are strongly correlated with the original measurement for IC terms in the U.S.

Secondly, the instruments can only influence the dependent variable through their correlation with the original IC terms. That is, import competition in other developed countries cannot be directly correlated with U.S. presidential election outcomes. Studies have shown that imports in other major developed economies should not affect local U.S. economies except through their correlation with U.S. imports (Autor, Dorn and Hanson 2013), and therefore the exclusion restriction is satisfied.

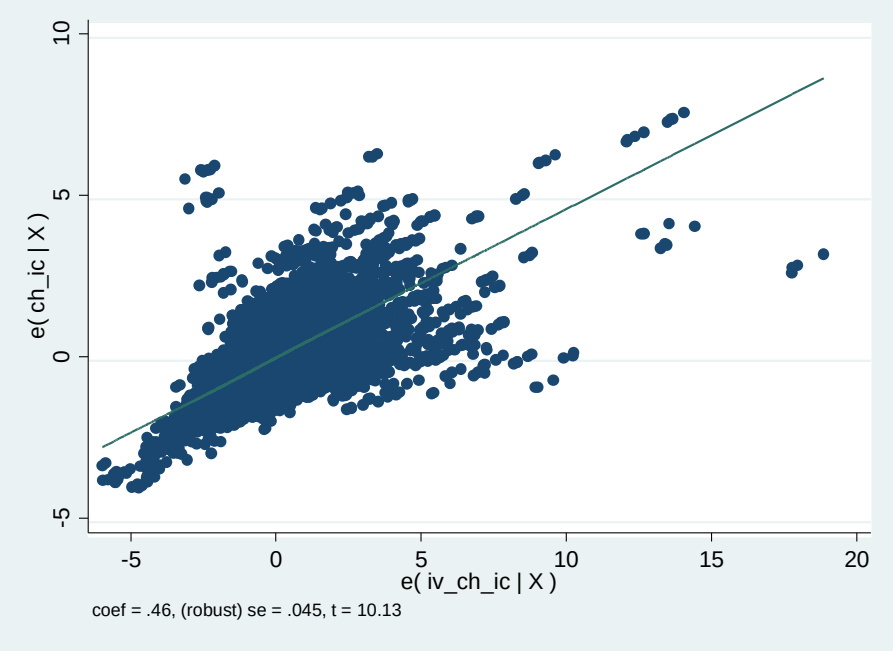
Upon an initial examination of the residual terms from an OLS estimation of (4), we observe evidence of heteroskedasticity and correlation between error terms in the residual graph (Figure 8). Therefore, we use heteroscedasticity robust standard errors clustered on the commuting zone level.

We weight observations by each county's 2000 population based on the reasoning that voting outcomes, even though measured on county level, is based on a collection of individual decisions. A county larger in population represents a larger set of observations, and therefore it is reasonable to weight observations based on a county's population.

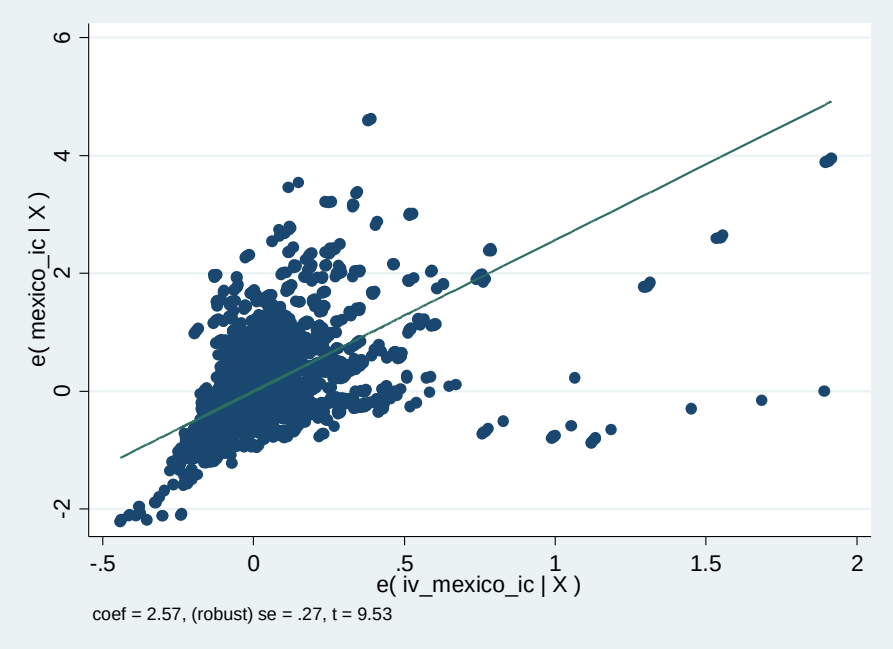
The final panel consists of 5 elections and 3,106 counties. Each observation in the sample consists of a single county. Because multiple counties form a Commuting Zone, counties within one CZ share the same labor market and have the same value for their IC terms. The following results and discussions apply to counties.

Figure 7. 2SLS First Stage Regression

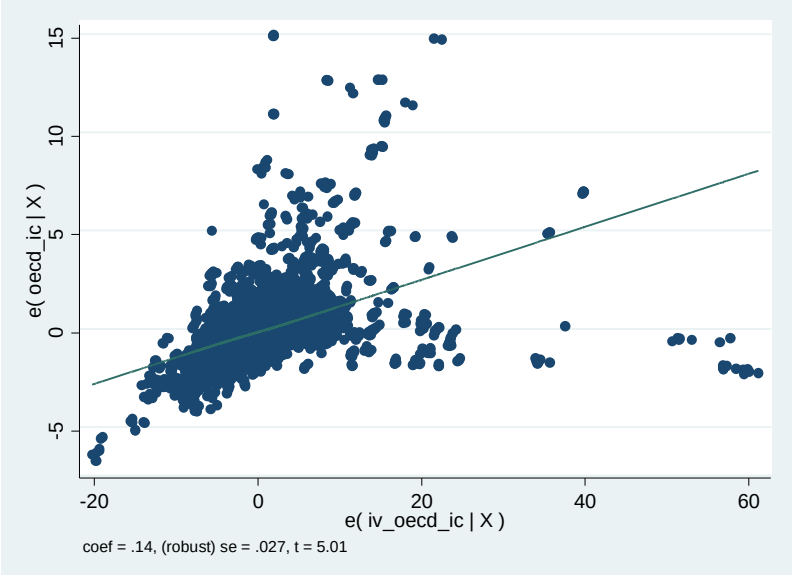
Panel A. Chinese Imports to U.S., Instrumented by Chinese Imports to Other Developed Countries



Panel B. Mexican Imports to U.S., Instrumented by Mexican Imports to Other Developed Countries

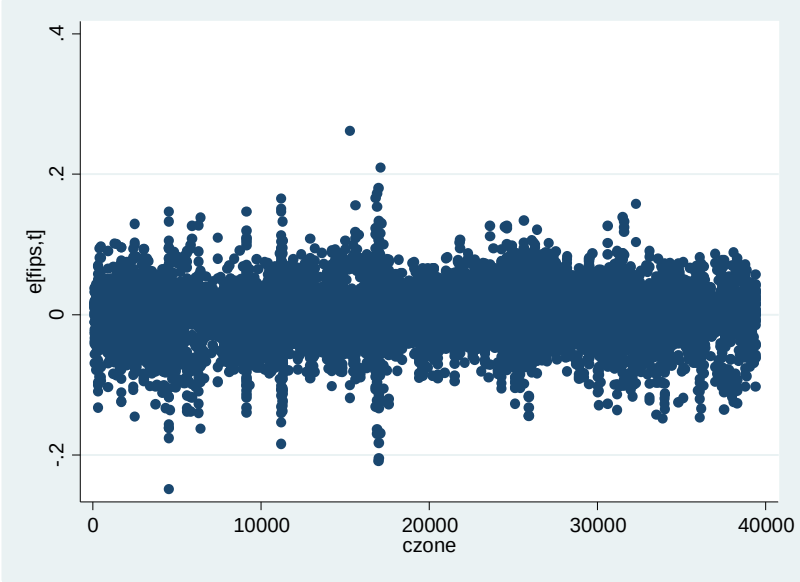


Panel C. OECD Imports to U.S., Instrumented by OECD Imports to Other Developed Countries



Notes: N = 3,106. The added variable plots control for variables as outlined in specification (6).

Figure 8. Residual plot shows evidence of heteroscedasticity and standard error clustering



5. Results

5.1 Test Results

We analyze the effect of rising regional trade exposure on presidential voting by estimating equation (5) using OLS and Two-Stage Least Squares (2SLS). We cluster heteroskedasticity-robust standard errors at commuting zone levels to address the observed correlation and variation between residuals across observations. We address the known sources of endogeneity using instrumental variables. We further introduce interaction terms to mitigate omitted variable bias caused by regional laissez-faire sentiment. We use county- and year-fixed effects to control for voting behavior that is specific to a particular region or time. We weight observations based on each county's population in 2000.

Table 7 presents the main results. Overall, we observe that exposure to import competition has a significant impact on U.S. Presidential elections. This impact exists for both imports both aggregated and from individual trading partners. For total U.S. imports, we find evidence of an anti-incumbent effect and a 2016 effect. Each unit increase in overall import competition reduces the incumbent party's Presidential vote share by 0.20%. In addition to the incumbent effect, the 2016 election in particular drove voters in trade-exposed regions toward the Republicans, as each unit increase in import competition is associated with a 0.69% increase in Republican vote share.

There exists the strongest evidence of voters reacting to import competition from OECD countries. We observe a realignment effect, an anti-incumbent effect, and a 2016 effect. For each unit increase in overall import competition, the model predicts a

3.87% decrease in Republican vote share, suggesting that exposure to OECD imports drives voters toward the Democratic candidate. However, this impact is partially offset by an anti-incumbent effect and a 2016 effect. In particular, in 2016 a unit increase in import competition is associated with a 0.43% decrease in Democratic Presidential vote shares because voters punished the incumbent, and a 1.82% additional vote share for the Republican candidate as Trump championed the anti-trade sentiment.

We observe an anti-incumbent effect and a 2016 effect for Mexican imports. In particular, a unit increase in Mexican import competition is associated with a 0.95% decrease in the incumbent party's vote share. In addition to the anti-incumbent effect, 2016 additionally drove 2.58% voters toward Republicans per unit increase in import competition. We do not observe a significant realignment effect.

For Chinese imports, we only observe a 2016 effect. For each unit increase in overall import competition, the model predicts a 1.23% increase in Republican Presidential vote shares in 2016. The lack of evidence for other impact channels is surprising given the known impact of Chinese imports on regional labor markets, especially in the 2000s. One potential explanation is that because China joined the WTO in 2001, by 2000 the voters had not immediately observed the labor market changes due to Chinese imports. As a result, Chinese import's impact on 2000 Presidential election was limited and only grew in subsequent elections. Because we use fixed-year effects, only patterns that are consistent throughout the years are estimated. If there exists anti-incumbent or realignment effect in elections after 2000, our main estimation would fail to capture such effects. In Column (5) we report results estimated from 2004 to 2016 elections. There exists evidence for a significant realignment effect but no anti-

incumbent effect during this sample period. We conclude that there is robust evidence for a 2016-effect for China imports, potential existence of a realignment effect in elections after 2000, and no anti-incumbent effect.

By comparing results from 2SLS and OLS (Tables 7 and 8), we confirm our hypothesis that supply-driven import exposure impacts local labor markets more significantly than demand-driven import-exposure, which tends to have a positive impact on employment. In particular, we observe higher significance as well as point estimates on our variables of interest. The interaction between import competition and the U.S. South dummy is significant for all regions, suggesting that U.S. South is indeed an omitted variable that has a significant impact on both import competition and Republican vote shares.

To address the broader concern that laissez-faire attitude is a significant factor omitted from the estimation, we replace the U.S. South dummy interaction with an interaction term between IC and each labor market's share of manufacturing employment. However, the interaction term and our other main variables of interest are highly correlated. Thus, including the interaction term generates unreliable point estimates for IC terms. With this specification, only the 2016 effect can be consistently observed.

One potential problem with our analysis comparing impact channels with regard to different trade partners is the high correlation between their geographical concentrations. Because import competition from different partners are spatially correlated and all contribute to changes in voting behaviors, only including imports from one country as an explaining variable can lead to biased estimates due to omitted

variables. However, including import competition from all sources introduces multi-collinearity into our estimation and results in unreliable estimates. As a check on robustness, we examine the impact of aggregated import competition from China and all OECD countries, and observe that there still exists significant evidence of an anti-incumbent effect and a 2016 effect. Therefore, while our analysis does suffer from omitted variable bias, a combination of the evidence from individual and aggregated imports allows us to confirm the existence of impact channels on the aggregated level and gain insight into the potential attribution of such impacts to particular exporters.

Based on the discussion above, we conclude that there exists significant evidence for a 2016 effect across all regions, and less robust, but still significant evidence for anti-incumbent and realignment effects for certain U.S. trading partners. The full regression results are reported in Tables 12 to 15.

Table 7. Main Test Results Estimated Using 2SLS

	China	Mexico	OECD	Total
IC	-0.00341	-0.0183	-0.0387**	0.00295
	(0.0072)	(0.0184)	(0.0158)	(0.0046)
IC * GOPIncumbent	0.00213	-0.00953**	-0.00428**	-0.00198**
	(0.0017)	(0.0043)	(0.0019)	(0.0008)
IC * 2016	0.0123***	0.0258***	0.0182***	0.00685***
	(0.0039)	(0.0077)	(0.0033)	(0.0015)
IC * South	0.0202***	0.0850***	0.166***	0.0229***
	(0.0057)	(0.0242)	(0.0486)	(0.0041)

Notes: N = 3,106 counties. Estimated using 2SLS with County and Year fixed effects. Reported standard errors are clustered at commuting zone level. Observations are weighted by a country's 2000 population. This table repeats main results from our preferred specifications in column (3), Tables 12 to 16.

Table 8. Main Test Results Estimated Using OLS

	China	Mexico	OECD	Total
IC	-0.0106**	-0.0017	0.000223	-0.00348~
	(0.0041)	(0.0083)	(0.0051)	(0.0021)
IC * GOPIncumbent	-0.00122	-0.00458	-0.00314**	-0.00184**
	(0.0015)	(0.0038)	(0.0013)	(0.0008)
IC * 2016	0.00677~	0.0299***	0.0127***	0.00604***
	(0.0038)	(0.0046)	(0.0023)	(0.0014)
IC * South	0.0166***	0.0427***	0.0129~	0.0126***
	(0.0057)	(0.0142)	(0.0070)	(0.0039)

Notes: N = 3,106 counties. Estimated using OLS with County and Year fixed effects. Reported standard errors are clustered at commuting zone level. Observations are weighted by a country's 2000 population. This table repeats main results from column (6), Tables 12 to 16.

5.2 Political Implications of Rising Trade Exposure

Our findings suggest that import competition with different U.S. trading partners impacts U.S. presidential elections through different channels and to varying degrees. This observation reveals the contrasting economic reality faced by workers competing with various sources of global imports. Specifically, we find that the anti-incumbent effect can be observed for import competition with OECD countries, but not China. One potential explanation for this difference is that import competition from OECD countries is relatively well-integrated into the U.S. economy. Compared to Chinese imports, which started at a low level but drastically increased over the last 20 years, imports from OECD countries have been fluctuating at a high but consistent level since the 2000s. Furthermore, imports from OECD countries predominantly compete in the high-skill manufacturing industries, whereas imports from China have a heavier presence in low-skill sectors. When losing their jobs to income competition, high-skilled workers are more likely to find alternative jobs, while low-skilled workers suffer from greater job churning and overall reduced income. Hence, regional labor markets are able to recover faster from import competition with OECD countries than with China. Therefore, while both significant in magnitude, OECD imports are better integrated into

the U.S. economy and local labor markets, and voters conform more closely to classical economic voting theory: they punish the incumbents when labor markets fail to perform and reward them when the economy grows.

We also observe a significant shift in voter response to import competition across time. Before 2016, exposure to import competition brought the Democratic candidate substantial vote shares. This observation is supported by previous literature showing that poor economic conditions are associated with higher support for Democrats in Congressional elections (Wright 2012), as Democrats generally propose better social welfare programs and more protectionist policies, and therefore are more aligned with the interests of regions that suffer from import competition. Our findings confirm this observation in Presidential elections.

The 2016 election completely reversed the historical trend. We observe voters realigning themselves with the Republicans, an effect that counterbalanced the advantage Democrats have held. Tables 9 and 10 present the individual and net impact that the discussed channels had on the 2016 U.S. Presidential election. Because voters might consider different years as the baseline for their evaluation of how local import competition has evolved (how far they look back), we present the changes in import competition since 2000, 2008, and 2012 (Table 11). While the magnitude of the impact differs based on the choice of baseline year, we observe that for OECD import competition across all time spans, the 2016 effect largely counter-balanced the original alignment of voters with Democrats in trade-exposed counties. That is, in 2016, Democrats lost a large share of voters that had been historically voting for them due to OECD import competition. When we examine impact of imports from other sources, we

observe a strong net gain of Republican vote share because the alignment effect is not statistically significant.

The Republicans' sudden switch from advocates to attackers of the free market is likely the driving force behind trade-impacted voters' significant realignment with the Republicans in 2016. The highest growth of import competition is concentrated in the South and the Midwest, regions that have historically been heavily Republican. Therefore, we observe the potential presence of a group of cross-pressured voters: ideologically, they were aligned with the conservative Republicans, but were unable to reject the appeal of Democrats, who promise better social welfare programs and tighter control on trade. The Republicans' open attack on trade and protectionist policy proposals in 2016, however, eliminated the Democratic candidate's appeal and motivated this group of cross-pressured voters to realign with the Republicans.

Granted, the magnitude of the impact discussed above is limited, and studies have shown that holding all other factors constant, an unrealistically high decrease in import competition is required to reverse the outcome of the 2016 presidential election (Autor et al. 2016). However, while not in itself pivotal, the sudden change in voter behavior in 2016 deserves attention from economists and politicians alike. Regardless of the timespan or trade partner that one chooses to look at, 2016 witnessed a significant party realignment for trade-impacted voters. Rather than riding on the historical tide, the Republican candidate was able to reverse the common trend of voting for Democrats in counties where local labor markets were negatively impacted by foreign trade, and win over voters who have suffered heavily from the decline in the U.S. manufacturing industry since the 1980s.

Table 9. 2014 Level of Import Competition by Trading Partner

	China	Mexico	OECD	Total
Mean	1.55	0.79	2.61	6.15
Weighted Mean	1.51	0.69	2.38	5.61
Standard Deviation	1.37	0.77	3.90	4.71
25% percentile	0.51	0.24	1.23	2.83
50% percentile	1.20	0.59	2.31	5.29
75% percentile	2.11	1.10	3.53	8.71
99% percentile	6.16	3.46	9.05	18.61

Table 10. Weighted Mean Change in CZ's Import Exposure by Trading Partner

	China	Mexico	OECD	Aggregated
1999 - 2015	1.108	0.271	0.036	1.414
2007 - 2015	0.337	0.194	-0.070	0.461
2011 - 2015	0.214	0.132	0.132	0.478

Table 11. Rising Trade Exposure's Impact on U.S. Presidential Elections

1999 - 2015	China	Mexico	OECD	Aggregated
Realignment Effect	0.00%	0.00%	-0.14%	0.00%
Anti-Incumbent Effect	0.00%	0.00%	0.00%	0.00%
2016 Effect	1.36%	0.70%	0.24%	0.97%
Net 2016 Impact	1.36%	0.70%	0.10%	0.97%

2007 - 2015	China	Mexico	OECD	Aggregated
Realignment Effect	0.00%	0.00%	0.27%	0.00%
Anti-Incumbent Effect	0.00%	0.00%	0.00%	0.00%
2016 Effect	0.41%	0.50%	-0.13%	0.32%
Net 2016 Impact	0.41%	0.50%	0.14%	0.32%

2012-2015	China	Mexico	OECD	Aggregated
Realignment Effect	0.00%	0.00%	-0.51%	0.00%
Anti-Incumbent Effect	0.00%	0.00%	0.00%	0.00%
2016 Effect	0.26%	0.34%	0.24%	0.33%
Net 2016 Impact	0.26%	0.34%	-0.27%	0.33%

Notes: Aggregated column is not a simple numerical sum of the previous three columns. Rather, it refers to test results where the key explaining variable is the aggregated import competition from China, Mexico, and other OECD countries.

6. Conclusion

Previous research has established that there exist different channels through which regional exposure to import competition impacts presidential and congressional elections. This paper adds to the existing literature by comparing how the impact of such channels differs in magnitude and significance across time and U.S. trade partners. Through examining import competition across regional labor markets and studying its impact on U.S. presidential elections, we find evidence of voters in trade-exposed regions aligning themselves with Democrats up until 2012. The trend was reversed in 2016, which witnessed trade-impacted voters' overwhelming support for the Republican candidate. We also observe differential impact across various U.S. trading partners. In particular, exposure to import competition from OECD countries drives voters away from the incumbent party, whereas such effect is not observed for Chinese import competition. Evidence of voters' alignment with Democrats is observed for OECD countries, aggregated imports during the full sample period, and China since 2004. We attribute the difference in impact channels to the difference in import's geographical concentration, industrial sector focus, and skill level of impacted workers.

The intriguing shift of voter behavior in 2016 provides insight into voter sentiment that is influenced by the evolving trend of globalization and political landscape. The Democrats historically appeal to workers competing with foreign trade due to their relative anti-trade policy leanings and better social welfare proposals. However, after the Republicans became the latest opponent of free trade, we observe that the Democrats lost their historical advantage. Given that the tide of global trade

will likely continue, the Republicans' stance on trade will be a crucial factor in the presidential elections of 2020 and beyond.

This study can be extended in the following ways. First, although some studies suggest that technology shocks have different timeline and geographical concentrations compared to import competitions, further analysis can be carried out to confirm that our estimation does not suffer from omitted variable bias due to voters reacting to loss in regional labor markets resulting from technological growth. Second, when examining the difference in impact on voting behaviors with regard to various trading partners, we observe high spatial correlation between sources of import competition. Measures should be taken to address the resulting bias in estimation. Finally, due to limitation in data availability, we only focus on voter behavior starting from the 2000s, when the level of imports from OECD countries was already high. Analyzing the growth in OECD imports, the resulting change in voter behavior prior to the 2000s, and comparing such impact to that of Chinese imports is thus another potential avenue of future research.

Table 12. Chinse Import Competition's Impact on U.S. Presidential Elections, 2000 - 2016

	(1)	(2)	(3)	(4)	(5)	(6)
	GOP%	GOP%	GOP%	GOP%	GOP%	GOP%
Estimation Technique	2SLS	2SLS	2SLS	2SLS	2SLS	OLS
ΔUnemploment% * GOPIncumbent	-0.0512	0.0899	0.0853	0.0591	-0.115	0.0838
	(0.087)	(0.143)	(0.150)	(0.153)	(0.221)	(0.150)
Unemployment%	-0.0373	0.0959	0.104	0.0583	-0.121	0.101
	(0.076)	(0.069)	(0.071)	(0.066)	(0.098)	(0.073)
Manufacturing Employment%	-0.108	0.0628	0.0985	-0.0894	-0.0171	-0.0543
	(0.142)	(0.101)	(0.093)	(0.118)	(0.080)	(0.081)
Hispanic%		-0.634***	-0.629***	-0.562***	-0.357***	-0.629***
		(0.140)	(0.124)	(0.134)	(0.128)	(0.125)
Black%		-0.0203	-0.0259	-0.0408	0.12	-0.0505
		(0.122)	(0.122)	(0.121)	(0.131)	(0.121)
Young%		0.0501	0.183	0.0361	-0.0184	0.0839
		(0.180)	(0.183)	(0.167)	(0.166)	(0.165)
Bachelor%		-0.407***	-0.316***	-0.338***	-0.186**	-0.361***
		(0.117)	(0.101)	(0.110)	(0.073)	(0.100)
Urban%		-0.0746***	-0.0704***	-0.0748***	-0.148***	-0.0686***
		(0.011)	(0.011)	(0.011)	(0.012)	(0.011)
Male%		2.539***	2.558***	2.406***	1.469***	2.542***
		(0.324)	(0.320)	(0.309)	(0.278)	(0.316)
Foreign Born%		-0.124	-0.215	-0.124	-0.431	-0.207
		(0.342)	(0.306)	(0.326)	(0.354)	(0.306)
ΔForeign Born%					0.736***	
					(0.234)	
China IC	0.00527	0.00474	-0.00341	0.00305	-0.0127~	-0.0109***
	(0.012)	(0.009)	(0.007)	(0.008)	(0.007)	(0.004)
China IC * GOP Incumbent	0.00258	0.00341~	0.00213	-0.00198	0.00125	-0.00118
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
China IC * is2016	0.0145***	0.0137***	0.0123***	0.0125***	0.0129***	0.00674~
	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
China IC * isSouth			0.0202***		0.0071	0.0172***
			(0.006)		(0.005)	(0.005)
China IC * Manufacturing%				0.0112***		
				(0.004)		
N	15512	15509	15509	15509	12402	15514
adj. R-sq	-0.052	0.11	0.124	0.137	0.191	0.309

Notes: Sample covers 3,106 counties in mainland U.S. for presidential elections from 2000 to 2016, except for column (5), which only covers 2004 to 2016 elections. Sample size varies slightly due to data availability. Robust standard errors in parentheses are clustered on commuting zone. Models are weighted by start of period county share of national population.
~ p<0.10, ** p<0.05, *** p<0.01

Table 13. Mexico Import Competition's Impact on U.S. Presidential Elections, 2000 - 2016

	(1)	(2)	(3)	(4)	(5)	(6)
	GOP%	GOP%	GOP%	GOP%	GOP%	GOP%
Estimation Technique	2SLS	2SLS	2SLS	2SLS	2SLS	OLS
ΔUnemploment% * GOPIncumbent	-0.0121	0.0848	0.0868	0.0887	-0.142	0.0993
	(0.090)	(0.139)	(0.131)	(0.141)	(0.203)	(0.132)
Unemployment %	0.00464	0.148**	0.159**	0.164**	-0.0834	0.149**
	(0.074)	(0.066)	(0.067)	(0.071)	(0.097)	(0.065)
Manufacturing Employment %	-0.147	0.0193	0.0415	-0.546**	0.135**	0.041
	(0.098)	(0.071)	(0.071)	(0.226)	(0.069)	(0.073)
Hispanic%		-0.603***	-0.620***	-0.621***	-0.331**	-0.586***
		(0.135)	(0.126)	(0.146)	(0.130)	(0.123)
Black%		-0.0647	-0.0462	-0.0682	0.119	-0.0549
		(0.118)	(0.121)	(0.118)	(0.130)	(0.118)
Young%		0.0381	0.105	0.00895	0.034	0.0805
		(0.169)	(0.171)	(0.169)	(0.146)	(0.166)
Bachelor%		-0.408***	-0.346***	-0.409***	-0.182**	-0.345***
		(0.116)	(0.109)	(0.115)	(0.076)	(0.108)
Urban%		-0.0702***	-0.0664***	-0.0692***	-0.155***	-0.0694***
		(0.011)	(0.011)	(0.012)	(0.012)	(0.011)
Male%		2.487***	2.550***	2.493***	1.427***	2.496***
		(0.314)	(0.315)	(0.309)	(0.278)	(0.307)
Foreign Born%		-0.129	-0.196	-0.0692	-0.371	-0.172
		(0.329)	(0.306)	(0.349)	(0.341)	(0.309)
ΔForeign Born%					0.632***	
					(0.220)	
Mexico IC	0.0207	-0.00767	-0.0183	0.015	-0.0367	-0.00166
	(0.022)	(0.021)	(0.018)	(0.027)	(0.025)	(0.008)
Mexico IC * GOP Incumbent	-0.00574	-0.00958**	-0.00953**	-0.0160***	-0.0133~	-0.00442
	(0.004)	(0.004)	(0.004)	(0.006)	(0.007)	(0.004)
Mexico IC * is2016	0.0247***	0.0295***	0.0258***	0.0168~	0.0342***	0.0298***
	(0.007)	(0.007)	(0.008)	(0.010)	(0.009)	(0.005)
Mexico IC * isSouth			0.0850***		0.0122	0.0437***
			(0.024)		(0.019)	(0.014)
Mexico IC * Manufacturing%				0.0527**		
				(0.021)		
N	15512	15509	15509	15509	12402	15514
adj. R-sq	0.018	0.156	0.159	0.121	0.23	0.334

Notes: Sample covers 3,106 counties in mainland U.S. for presidential elections from 2000 to 2016, except for column (5), which only covers 2004 to 2016 elections. Sample size varies slightly due to data availability. Robust standard errors in parentheses are clustered on commuting zone. Models are weighted by start of period county share of national population.
~ p<0.10, ** p<0.05, *** p<0.01

Table 14. OECD Import Competition's Impact on U.S. Presidential Elections, 2000 - 2016

	(1)	(2)	(3)	(4)	(5)	(6)
	GOP%	GOP%	GOP%	GOP%	GOP%	GOP%
Estimation Technique	2SLS	2SLS	2SLS	2SLS	2SLS	OLS
ΔUnemploment% *	0.0533	0.0993	0.640***	0.0919	0.0897	0.151
GOPIncumbent	(0.097)	(0.141)	(0.213)	(0.144)	(0.195)	(0.132)
Unemployment%	0.0666	0.163**	0.414***	0.139~	0.111	0.181**
	(0.082)	(0.071)	(0.107)	(0.084)	(0.111)	(0.072)
Manufacturing	-0.213**	0.052	-0.186	0.314	0.121	-0.0109
Employment %	(0.102)	(0.075)	(0.126)	(0.557)	(0.079)	(0.073)
Hispanic%		-0.594***	-0.797***	-0.572***	-0.393***	-0.629***
		(0.135)	(0.151)	(0.134)	(0.116)	(0.133)
Black%		-0.0618	-0.0466	-0.0545	0.12	-0.059
		(0.115)	(0.116)	(0.116)	(0.119)	(0.115)
Young%		0.0351	0.106	0.0522	0.0794	0.0307
		(0.163)	(0.226)	(0.164)	(0.146)	(0.161)
Bachelor%		-0.385***	-0.242~	-0.357***	-0.0967	-0.390***
		(0.114)	(0.136)	(0.126)	(0.082)	(0.114)
Urban%		-0.0696***	-0.0577***	-0.0694***	-0.146***	-0.0670***
		(0.011)	(0.012)	(0.010)	(0.012)	(0.011)
Male%		2.418***	2.524***	2.395***	1.422***	2.446***
		(0.317)	(0.340)	(0.327)	(0.280)	(0.311)
Foreign Born%		-0.131	-0.0262	-0.156	-0.299	-0.122
		(0.329)	(0.326)	(0.322)	(0.333)	(0.332)
ΔForeign Born%					0.504**	
					(0.216)	
OECD IC	0.0179**	0.00115	-0.0387**	-0.0022	-0.0250**	0.000251
	(0.009)	(0.007)	(0.016)	(0.011)	(0.012)	(0.005)
OECD IC * GOP	-0.00199	-0.00183	-0.00428**	-0.00131	-0.00343~	-0.00311**
Incumbent	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)
OECD IC * is2016	0.0183***	0.0176***	0.0182***	0.0175***	0.0174***	0.0127***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.002)
OECD IC * isSouth			0.166***		0.0647***	0.0128~
			(0.049)		(0.019)	(0.007)
OECD IC *				-0.00527		
Manufacturing%				(0.011)		
N	15512	15509	15509	15509	12402	15514
adj. R-sq	-0.005	0.153	-0.242	0.153	0.211	0.159

Notes: Sample covers 3,106 counties in mainland U.S. for presidential elections from 2000 to 2016, except for column (5), which only covers 2004 to 2016 elections. Sample size varies slightly due to data availability. Robust standard errors in parentheses are clustered on commuting zone. Models are weighted by start of period county share of national population.
~ p<0.10, ** p<0.05, *** p<0.01

Table 15. Aggregated Import Competition's Impact on U.S. Presidential Elections, 2000 - 2016

	(1)	(2)	(3)	(4)	(5)	(6)
	GOP%	GOP%	GOP%	GOP%	GOP%	GOP%
Estimation Technique	2SLS	2SLS	2SLS	2SLS	2SLS	OLS
ΔUnemploment% * GOPIncumbent	0.0895	0.144	0.232	0.138	-0.0769	0.133
	(0.101)	(0.141)	(0.155)	(0.141)	(0.205)	(0.144)
Unemployment %	0.053	0.166**	0.221***	0.166**	-0.0159	0.176**
	(0.081)	(0.070)	(0.078)	(0.070)	(0.097)	(0.072)
Manufacturing Employment %	0.0192	0.118~	0.195**	0.0442	0.376**	0.079
	(0.110)	(0.070)	(0.082)	(0.195)	(0.160)	(0.068)
Hispanic%		-0.609***	-0.649***	-0.607***	-0.325**	-0.634***
		(0.136)	(0.118)	(0.137)	(0.128)	(0.124)
Black%		-0.0447	-0.0317	-0.0478	0.117	-0.0554
		(0.116)	(0.114)	(0.115)	(0.124)	(0.115)
Young%		0.089	0.313	0.0856	0.0222	0.149
		(0.180)	(0.200)	(0.179)	(0.156)	(0.168)
Bachelor%		-0.365***	-0.216**	-0.365***	-0.159**	-0.330***
		(0.115)	(0.105)	(0.115)	(0.076)	(0.105)
Urban%		-0.0705***	-0.0623***	-0.0706***	-0.152***	-0.0653***
		(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Male%		2.435***	2.490***	2.432***	1.417***	2.523***
		(0.320)	(0.318)	(0.318)	(0.279)	(0.315)
Foreign Born%		-0.124	-0.227	-0.118	-0.364	-0.182
		(0.333)	(0.291)	(0.337)	(0.351)	(0.306)
ΔForeign Born%					0.584**	
					(0.227)	
Total IC	0.0166***	0.006	0.00295	0.00604	-0.00371	-0.00362~
	(0.006)	(0.005)	(0.005)	(0.005)	(0.005)	(0.002)
Total IC * GOP Incumbent	-0.00150~	-0.000955	-0.00198**	-0.00117	-0.000585	-0.00182**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Total IC * is2016	0.00698***	0.00779***	0.00685***	0.00768***	0.00869***	0.00605***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)
Total IC * isSouth			0.0229***			0.0129***
			(0.004)			(0.004)
Total IC * Manufacturing%				0.00107	-0.00313	
				(0.003)	(0.002)	
N	15512	15509	15509	15509	12402	15514
adj. R-sq	-0.035	0.141	0.131	0.143	0.215	0.33

Notes: Sample covers 3,106 counties in mainland U.S. for presidential elections from 2000 to 2016, except for column (5), which only covers 2004 to 2016 elections. Sample size varies slightly due to data availability. Robust standard errors in parentheses are clustered on commuting zone. Models are weighted by start of period county share of national population.
~ p<0.10, ** p<0.05, *** p<0.01

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